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10/561,036

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Johann Wagner

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EXAMINER

CHANG, CHING

ART UNIT

PAPER NUMBER

3748

MAIL DATE

DELIVERY MODE

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/561,036

Applicant(s)

WAGNER, JOHANN

Examiner

CHING CHANG

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12/16/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 14-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-18, 24 and 26-29 is/are rejected.
- 7) ☒ Claim(s) 19-23 and 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 12/16/05.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

This Office Action is in response to the Preliminary Amendment filed on 12/16/05.  
Claims 1-13 are cancelled, and new claims 14-29 are added as requested.

#### ***Oath/Declaration***

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not identify the citizenship of the inventor properly. The citizenship of the inventor in this application should be -- Austria --, instead of " Austrian " therein.

#### ***Drawings***

2. All the drawings of this instant application are missing. Since the subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention, Applicant is required to furnish a drawing under 37 CFR 1.81(c). No new matter may be introduced in the required drawing. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d).

#### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 29 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

More specifically, " in particular " in claim 29 renders the claimed subject matter in claim 29 indefinite.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. ***Claims 14-18 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as being obvious over Matsunaga (US Patent 5,813,377).***

Matsunaga discloses an internal combustion engine comprising a variable valve drive device provided with at least one camshaft (12) with at least one cam (15) arrangement, which comprises a cam (22) which is movable essentially radially relative to the camshaft, and at least one base circle disk (part of 21) fixed on the camshaft, wherein the cam is actuated by an adjusting element (46) located at a side of the camshaft; wherein the cam is brought from an inactive position to a lifting position by the adjusting element prior to or during a lifting phase; wherein the cam which is movable

on the camshaft in essentially radial direction is held against the camshaft in an opposite direction of the lifting position by a spring element and can be retracted to its inactive position after the lifting phase by the spring element (42); wherein the cam in its inactive position is within the base circle of the base circle disk; wherein the cam is borne by sliding surfaces on circular guiding surfaces of the camshaft.

8. ***Claims 14-15, 18, 24, and 26-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Elrod et al. (US Patent 5,136,887).***

Elrod discloses an internal combustion engine comprising a variable valve drive device provided with at least one camshaft (22) with at least one cam (42) arrangement, which comprises a cam (42) which is movable essentially radially relative to the camshaft, and at least one base circle disk (part of 36) fixed on the camshaft, wherein the cam is actuated by an adjusting element (160) located at a side of the camshaft; wherein the cam is brought from an inactive position to a lifting position by the adjusting element prior to or during a lifting phase; wherein the cam is borne by sliding surfaces on circular guiding surfaces of the camshaft; wherein the adjusting element has at least one working surface, which interacts with a corresponding mating surface on the first part of the cam.

9. ***Claim 29 is rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as being obvious over Curtil (US Patent 4,424,790).***

Curtil discloses a method of operating an internal combustion engine, a diesel internal combustion engine, with fully variable valve drive, wherein an opening time of

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an inlet valve is shifted to "late" or a closing time of an inlet valve is shifted to "early" during a start-up phase (See Figs. 2, 5-6) and/or during operating phases with low compression ratio.

10. ***Claim 29 is rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as being obvious over Humphrey (US Patent 4,805,571).***

Humphrey discloses a method of operating an internal combustion engine, a diesel internal combustion engine, with fully variable valve drive, wherein an opening time of an inlet valve is shifted to "late" or a closing time of an inlet valve is shifted to "early" during a start-up phase (See Figs. 25, 34, 43) and/or during operating phases with low compression ratio.

11. ***Claim 29 is rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as being obvious over Kruger (US Patent 5,404,770).***

Kruger discloses a method of operating an internal combustion engine, with fully variable valve drive (See Figs. 1-3), wherein an opening time of an inlet valve is shifted to "late" or a closing time of an inlet valve is shifted to "early" during a start-up phase (See Figs. 4-7) and/or during operating phases with low compression ratio.

12. ***Claims 14-18, 24, and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dengler (DE '904) in view of Elrod et al. (US Patent 5,136,887).***

Dengler discloses an internal combustion engine comprising a variable valve drive device provided with at least one camshaft (1) with at least one cam arrangement,

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which comprises a cam (21) which is movable essentially radially relative to the camshaft, and at least one base circle disk (25) fixed on the camshaft; wherein the cam is brought from an inactive position to a lifting position by the adjusting element prior to or during a lifting phase; wherein the cam which is movable on the camshaft in essentially radial direction is held against the camshaft in an opposite direction of the lifting position by a spring element and can be retracted to its inactive position after the lifting phase by the spring element (38); wherein the cam is borne by sliding surfaces on circular guiding surfaces of the camshaft wherein the cam in its inactive position is within the base circle of the base circle disk.

Dengler discloses the invention as recited above, however, fails to explicitly show an adjusting element being located at a side of the camshaft.

The patent to Elrod on the other hand, teaches that it is conventional in the engine art, to utilize an adjusting element (42), located at a side of the camshaft, to actuate a cam (42).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the adjustment element as taught by Elrod in the Dengler device, since the use thereof would provide a more reliable engine valve drive device.

13. ***Claim 29 is rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as being obvious over Bryant (US Patent 6,279,550).***

Bryant discloses a method of operating an internal combustion engine, with fully variable valve drive (See Figs. 8, 25), wherein an opening time of an inlet valve is shifted to "late" or a closing time of an inlet valve is shifted to "early" during a start-up phase (See Figs. 12-13) and/or during operating phases with low compression ratio.

***Allowable Subject Matter***

14. Claims 19-23, and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHING CHANG whose telephone number is (571)272-4857. The examiner can normally be reached on M-Th, 7:00 AM -5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (571)272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a



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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ching Chang/  
Primary Examiner, Art Unit 3748